

A new genus and species of Sciomyzidae from Tanzania,
with a key to the genera of the Ethiopian region and
distributional notes (Diptera: Acalyptratae)*

by

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The taxonomy of the Ethiopian Sciomyzidae has a solid foundation in the several papers of J. Verbeke, but the fauna is probably rather poorly known in comparison to the faunas of the Palearctic and Nearctic Regions. As an all-inclusive key to the genera of the Ethiopian Region (Africa and Arabia south of the Tropic of Cancer) has not been available, one is presented here with the hope that it may facilitate identification and stimulate further collecting in this area.

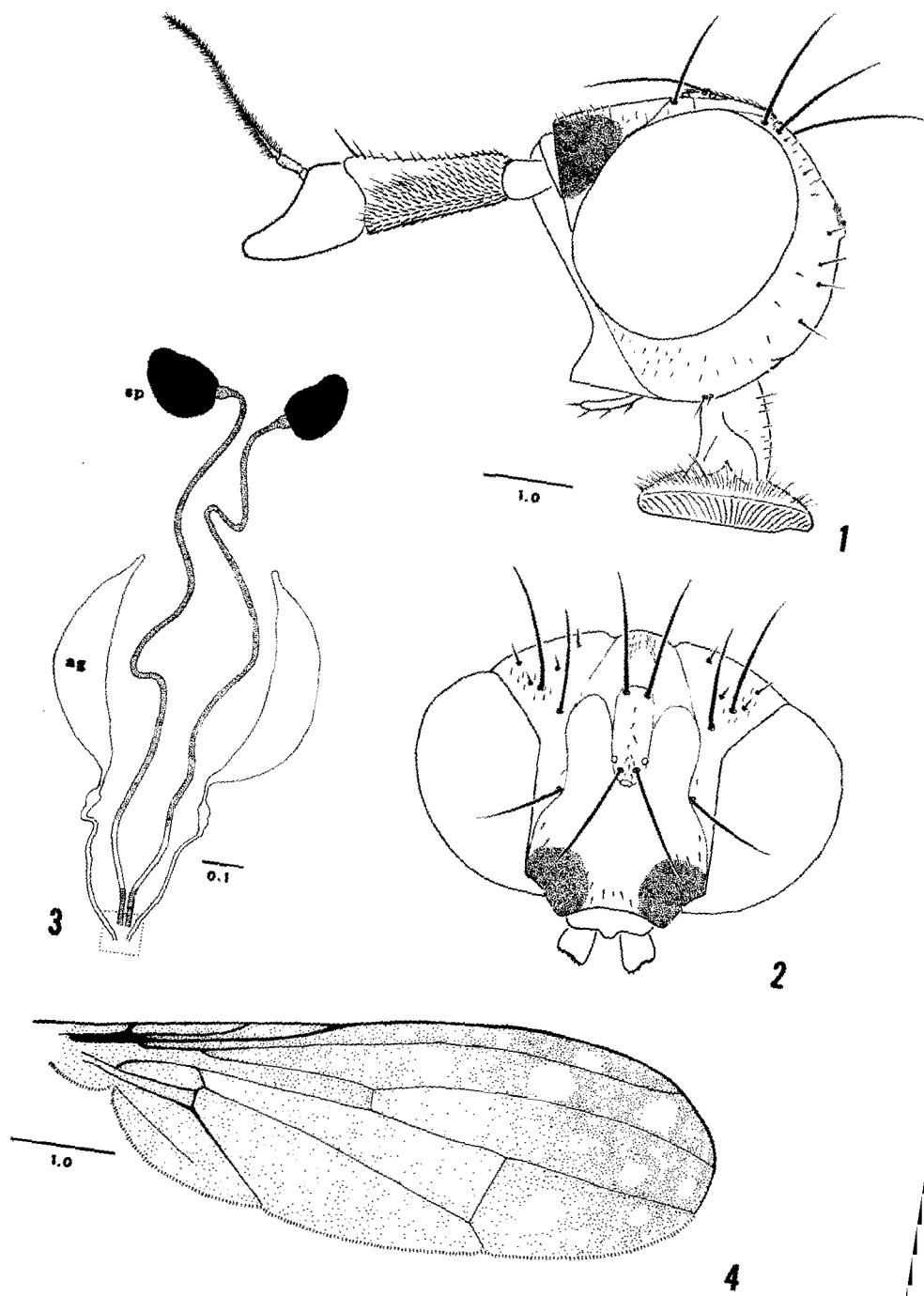
The geographical distribution of the Sciomyzidae of the Old World fits the classical distinction between the Palearctic and Ethiopian Regions rather well. At least 18 typically European species occur also along the northern edge of Africa, from the Canary Islands and Mogador, Morocco to Cairo. These include: *Colobaea pectoralis* (Zett.), *Elgiva cucularia* (L.), *Hydromya dorsalis* (Fabr.), *Knutsonia trifaria* (Loew), *K. unipunctata* (Macq.), *Euthycera stictica* (Fabr.), *Pherbellia albicarpa* (Rond.), *P. cinerella* (Fall.), *P. griseola* (Fall.), *P. grisescens* (Meig.), *P. nana* (Fall.), *Pherbina coryleti* (Scop.), *P. mediterranea* Mayer, *Pscadina disjecta* End., *Salticella fasciata* (Meig.), *Sepedon sphegea* (Fabr.), *S. s. spinipes* Scop., and *Tetanocera ferruginea* Fall. In addition, four species (*Limnia nigrescens* Beck., *L. rubra* Loew, *Oligolimnia zeryna* Mayer, and *Pherbellia villiersi* Séguy) seem to be endemic to this area. Only two sub-Saharan species are known to occur also in the Palearctic Region. *Sepedon hispanica* Loew is found in southern Spain and *S. ruficeps* Beck. has been collected in the Cape Verde Islands and northern Egypt. J. Verbeke (*in litt.*) has noted, "*S. senegalensis* Macquart although strictly ethiopian, extends toward the southern limit of the palearctic region."

VERBEKARIA gen. nov.

This genus is a member of the Sepedoninae as defined by Verbeke (1950). It may be distinguished from other genera of Sciomyzidae as follows: *artista* white, lunule exposed, no midfrontal stripe, ocellar and postocellar bristles well developed, second antennal segment more than $\frac{1}{2}$ as long as third, no propleural or vallar (subalar) bristles, two pairs of scutellar bristles, hind coxae with bristles posteromesally, front and hind tarsi each with one dorsal preapical bristle, anal cell of wing truncate apically.

The genus is named in honour of Dr Jean Verbeke, Institut royal des Sciences naturelles de Belgique.

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***Verbekaria punctipennis* spec. nov., figs. 1-4.**

Head (fig. 1, 2) mostly yellow, rounded in lateral view, broader than high in facial view, cheeks $\frac{1}{2}$ of eye height, lower face produced. Lunule broadly exposed. Front pruinose, no midfrontal stripe; pair of large, black parafrontal spots present. One pair of frontorbital bristles, ocellars and postocellars well developed, one or two strong genal bristles. First antennal segment yellow, $\frac{1}{2}$ length of second segment; third antennal segment black, yellowish dorsobasally, slightly more than $\frac{1}{2}$ length of brownish second segment; arista with short, dense, white plumosity to tip. Palpi yellow.

Thorax yellow, dorsum pruinose, remaining surface shiny except for silvery-pruinose posterior margin of sternopleuron and slightly pruinose hypopleuron. Prosternum bare. Propleuron and humerus with hairs but without bristles. Posthumeral bristle small, two pairs of notopleural bristles, one pair of supraalars, one pair of postalars, one pair of dorsocentrals, no prescutellar acrostichals, and two pairs of scutellars. Mesopleuron with a few fine hairs scattered near dorsal and posterior margins, pteropleuron bare, no vallar bristles, metapleural callosity with several bristles, hypopleuron bare, sternopleuron with hairs.

Abdomen yellow, no middorsal stripe. No large marginal bristles. Intersegmental membranes broad, sclerites strongly retractile. Two, black, pear-shaped, subequal spermathecae (sp, fig. 3), 0.12×0.15 mm, on separate ducts. Paired accessory glands (ag, fig. 3), 0.14×0.50 mm; spermathecal duct 1.0 mm long.

Legs elongate, slender. Femora yellow, without ventral spinules or large bristles except for row of 4 to 6 widely spaced bristles on dorsal surface of front femur. Each tibia with one dorsal preapical bristle; front and hind tibiae black; middle tibia brownish basally, yellowish apically. Front tarsi with 3 basal segments black, 2 apical segments white and densely pruinose; middle and hind tarsi yellowish and distinctly narrower. Coxae yellow with white pruinosity; hind coxae with a few bristles on upper, mesal surface.

Wing, 6.6 mm long (fig. 4). Membrane brownish, darkest apically, with several large round, transparent spots; veins yellow to dark brown; cross veins not infuscated; anal cell truncate apically; r_1 not attaining level of anterior cross vein; veins r_{4+5} and m_{1+2} slightly convergent apically.

HOLOTYPE: Female. Tanganyika, Ulguru Mts., 1500-1800 m. In Canadian National Collection, Ottawa.

PARATYPE: Female, same data. In Cornell University Collection, Ithaca. Cornell University type number 4409.

Key to Genera of Ethiopian Sciomyzidae*

| | | |
|---|--|-------------------|
| 1 | Anal cell (Cu_2) with triangular extension postero-apically; r_{4+5} and m_{1+2} strongly convergent apically | <i>Salticella</i> |
| — | Anal cell without triangular extension postero-apically; r_{4+5} and m_{1+2} parallel or only slightly convergent apically | 2 |
| 2 | Propleuron with strong bristle above base of coxa; male with 2 pairs of surstyli | 3 |
| — | Propleuron without strong bristle above base of coxa; male with 1 pair of surstyli | 4 |

* Couples 6 to 9 modified, in part, from Verbeke (1950).

EXPLANATION OF FIGURES

Figs. 1-4. *Verbekaria punctipennis* gen. et spec. nov., female. 1. Head, lateral view. 2. Head dorsal view. 3. spermathecae (sp) and accessory glands (ag). 4. wing.

| | | |
|---|--|---------------------|
| 3 | Front mostly pruinose black; arista with several dorsobasal hairs black, bristle-like, and much stronger than others; anal vein not reaching margin of wing | <i>Colobaea</i> |
| — | Front mostly pruinose yellowish to brownish; arista without large, black, dorsobasal hairs; anal vein reaching margin of wing | <i>Pherbellia</i> |
| 4 | Midfrontal stripe well developed, bordered by broad pruinose areas | <i>Ethiolimnia</i> |
| — | Midfrontal stripe absent or indistinct, front often concave, entirely pruinose or shiny to subshiny with pruinosity limited to orbital margin or to patch before frontorbital bristle | <i>Tetanoptera</i> |
| 5 | Front entirely pruinose; ocellar bristles well developed; 2 pairs of scutellar bristles; wing spotted | <i>Verbekaria</i> |
| — | Front mainly shiny to subshiny; pruinosity limited to orbital margin or to patch before frontorbital bristle; ocellar bristles minute or absent; 1 pair of scutellar bristles; wing not spotted but often with darkened apex or costal margin | 6 |
| 6 | Mesonotum angulate anteromesially; first antennal segment elongate, at least $\frac{1}{2}$ length of third segment; humeral bristle present but greatly reduced; midfrontal stripe slightly more shiny than rest of front; front perpendicular or strongly oblique | <i>Sepedomyia</i> |
| — | Mesonotum not angulate anteromesially; first antennal segment short, at most $\frac{1}{2}$ length of third segment; humeral bristle entirely absent; no midfrontal stripe; front slightly oblique | 7 |
| 7 | Two pairs of frontorbital bristles, anterior pair proclinate, posterior pair reclinate, or frontorbital bristles absent; lunule very large, inflated | <i>Sepedoninus</i> |
| — | Only posterior frontorbital bristles present; lunule not strongly inflated | 8 |
| 8 | Postocellar bristles present | <i>Sepedon</i> |
| — | Postocellar bristles absent | 9 |
| 9 | Two pairs of notopleural bristles; pteropleuron bare | <i>Tetanoptera</i> |
| — | One pair of notopleural bristles; pteropleuron with a few minute hairs | <i>Sepedonvolel</i> |

SALTICELLA Robineau-Desvoidy, 1830

One species, *S. stuckenbergi* Verbeke. Known from 5 specimens, collected at Mamathes, Lesotho (Basutoland), November 6, 13, and 14, 1954 by C. Jacot-Guillarmod. Reference: Verbeke (1962b).

COLOBAEA Zetterstedt, 1837

One undescribed species, collected by J. C. Deeming at Zaria, Northern Nigeria during February, 1967.

PHERBELLIA Robineau-Desvoidy, 1830

Three species of the subgenus *Graphomyzina* known from Rwanda, Republic of the Congo, and Northern Nigeria. One species *inerta* (*Scionyzia capensis* Walker) recorded from the "Cape". References: Walker (1852), Verbeke (1950, 1962b).

ETHIOLIMNIA Verbeke, 1950

Seven species, known from Rwanda, "Caffraria", and South Africa. The type of *Tetanocera vittipennis* Thomson, 1868, in the collections at the Naturhistoriska Riksmuseet, Stockholm, was examined. The specimen, a female in good condition, is labelled: "Cap. B. sp.", "Kinb.", "Typus". The species should be known as *Ethiolimnia vittipennis* (Thomson) comb. nov. One species *incerta*, *Limnia capensis* Schiner, 1868, described from the Cape of Good Hope, also may belong to this genus. References: Loew (1862), Thomson (1868), Verbeke (1950, 1956, 1961, 1962a, b).

TETANOPTERA Verbeke, 1950

One species, *T. leucodactyla* Verbeke, described from 1 female labelled: "vers Rweru (volc. Mikeno), 2,400 m, 12.VII.1934." Reference: Verbeke (1950).

SEPEDOMYIA Verbeke, 1950

Two species. *Sepedomyia alaotra* Verbeke is known only from Madagascar and *S. nasuta* Verbeke has been collected in Uganda, Republic of the Congo, Tanzania, and South Africa. References: Verbeke (1950, 1961, 1962b, 1963), Steyskal & Verbeke (1956).

SEPEDON Latreille, 1804

About 38 species, known from most parts of the Ethiopian Region. Most of the publications cited here deal with some species of this genus and references to the older literature may be found in the papers by Verbeke. See Verbeke (1961) for keys to subgenera and species groups. The biology and immature stages of *S. hispanica* Loew, *S. ruficeps* Becker, and *S. scapularis* Adams was discussed by Knutson, *et al.* (1967).

SEPEDONELLA Verbeke, 1950

Four species, described from the Republic of the Congo, of which *S. nana* Verbeke is also known from Ethiopia. References: Verbeke (1950, 1961, 1963), Steyskal & Verbeke (1956).

SEPEDONINUS Verbeke, 1950

Three species, recorded from the Republic of the Congo. References: Verbeke (1950, 1963).

NEW RECORDS OF ETHIOPIAN SCIOMYZIDAE

Pherbellia kivuana Verbeke. N. NIGERIA: Zaria, Samaru Lake, 9.II.1966, 2 ♀, J. C. Deeming, CUC.* Zaria, Samaru, irrig. ditch, 16.II.1966, 3 ♂, J. C. Deeming, CUC. Zaria, lake shore, 20.II.1966, 1 ♀, 2 ♂, J. C. Deeming, CUC.

Sepedomyia nasuta Verbeke. UGANDA: Ngora, 11.XI.1948, 1 ♀, J. C. Bradley, CUC, det. J. Verbeke. TANZANIA: Mbeza, XII.1962, 4 ♀, 1 ♂, CNC.

Sepedon maculifemur Verbeke. N. NIGERIA: Zaria, Samaru Lake, 27.XI.1966, 1 ♂, J. C. Deeming, CUC. Jos, 20.II.1967, 1 ♂, Gordon Kuipers, CUC.

Sepedon ornatifrons Becker. N. NIGERIA: Zaria, reedy stream, 10.III.1966, 2 ♂, Lyle and Deeming, CUC. Zaria, Samaru, irrig. ditch, 16.IV.1966, 4 ♂; 17.IV.1966, 3 ♀, 3 ♂, J. C. Deeming, CUC.

Sepedon ruficeps Becker. N. NIGERIA: Zaria, Samaru, irrig. ditch, 16.II.1966, 2 ♀, 1 ♂; 15.IV.1966, 1 ♀, 1 ♂, J. C. Deeming, CUC. Zaria, Samaru, lake shore, 5.III.1966, 1 ♀, J. C. Deeming, CUC. Zaria, Kufena Pond, 25.XI.1966, 2 ♀, 1 ♂, J. C. Deeming, CUC. Zaria, Samaru Lake, 23.I.1967, 1 ♂, J. C. Deeming, CUC.

Sepedon saegeri Verbeke. N. NIGERIA: Zaria, reedy stream, 10.III.1966, 1 ♀, 1 ♂, Lyle and Deeming, CUC. Zaria, Samaru Lake, 24.X.1966, 1 ♂; 14.XI.1966, 3 ♂; 27.XI.1966, 1 ♀, 1 ♂; 12.XII.1966, 1 ♀, 4 ♂; 15.XII.1966, 1 ♀; 31.I.1967, 1 ♀, J. C. Deeming, CUC. TANZANIA: Lushoto, N. Usambara Mts., 1,600 m, II.1962, 2 ♀, 1 ♂, CNC. Mt. Meru, 1,800 m, VI.1962, 1 ♀, 3 ♂; 10.VI.1962, 1 ♀, 1 ♂; 21.VI.1962, 2 ♀, 1 ♂; 20.VII.1962, 1 ♂, CNC.

* CUC = Cornell University Collection, Ithaca; CNC = Canadian National Collection, Ottawa.

Sepedon schoutedeni Verbeke. ETHIOPIA: Ambo, 7,500 ft., 3-6.II.1962, 3 ♀, 2 ♂, S. M. Clark, CNC.

Sepedon senegalensis Verbeke. ETHIOPIA: Ilubabor Province, Gambella, 10.I.1962, 1 ♀, 2 ♂; 24.IV.1962, 1 ♂, W. C. Frohne, CUC, det. J. Verbeke.

Sepedon straeleni Verbeke. REPUBLIC OF THE CONGO: Mwenda, Mt. Ruwenzori, 1,455 m, 12-13.XII.1948, 1 ♂, J. C. Bradley, CUC, det. J. Verbeke.

Sepedon testacea Loew. ETHIOPIA (Eritrea): Gura, 30.IV.1943, 1 ♀, J. D. Rebstock, CUC, det. J. Verbeke.

Sepedon trichroscelis Speiser. ETHIOPIA: Addis Ababa, 8,200 ft., 21.II.1962, 1 ♂, S. M. Clark, CNC. Ilubabor Province, Gambella, 24.IV.1962, 2 ♀, W. C. Frohne, CUC, det. J. Verbeke.

Sepedonella nana Verbeke. ETHIOPIA: Ilubabor Province, Gambella, 10.I.1962, 2 ♀; 24.IV.1962, 2 ♂, W. C. Frohne, CUC, det. J. Verbeke. REPUBLIC OF THE CONGO: Kabala to Malanga, Lualaba R., 23-24.I.1949, 1 ♂, J. C. Bradley, CUC, det. J. Verbeke.

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